1. **Amendments to the Claims**:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A differential amplifier, comprising:

a pair of transistors;

a pair of inductors that provide impedance matching for the differential amplifier and that are arranged such that the inductors have a mutual inductance that increases when the differential amplifier is in a common mode.

2. (Previously Presented) The differential amplifier of claim 1, wherein the inductors comprise a transformer.

3. (Previously Presented) The differential amplifier of claim 1, wherein the inductors are arranged to provide input impedance matching for the differential amplifier.

4. (Previously Presented) The differential amplifier of claim 1, wherein the inductors are coupled to a source terminal of each transistor.

5. (Previously Presented) The differential amplifier of claim 1, wherein the inductors are arranged to provide noise control for the differential amplifier.

6. (Previously Presented) The differential amplifier of claim 1, wherein the inductors are arranged to increase common mode rejection in the differential amplifier.

7. (Previously Presented) The differential amplifier of claim 1, further comprising a second pair of inductors that are arranged to bias the transistors.

8. (Previously Presented) The differential amplifier of claim 7, wherein the second pair of inductors are arranged to have a mutual inductance that increases when the differential amplifier is excited in the differential mode.

9. (Previously Presented) The differential amplifier of claim 8, wherein the second pair of inductors comprise a transformer.

10. (Previously Presented) The differential amplifier of claim 9, wherein the second pair of inductors are arranged to provide output impedance matching.

11-20. (Cancelled).

21. (Previously Presented) A method for providing a differential amplifier, comprising providing a pair of transistors; and arranging a pair of inductors for

impedance matching to the differential amplifier such that the inductors have a mutual inductance that increases when the differential amplifier is in a common mode.

22. (Previously Presented) The method of claim 21, wherein arranging comprises arranging the inductors for form a transformer.

23. (Previously Presented) The method of claim 21, wherein arranging comprises arranging the inductors to provide input impedance matching for the differential amplifier.

24. (Previously Presented) The method of claim 21, wherein arranging comprises coupling the inductors to a source terminal of each transistor.

25. (Previously Presented) The method of claim 21, wherein arranging comprises coupling the inductors to provide noise control for the differential amplifier.

26. (Previously Presented) The method of claim 21, wherein arranging comprises coupling the inductors to increase common mode rejection in the differential amplifier.

27. (Previously Presented) The method of claim 21, further comprising arranging a second pair of inductors that bias the transistors.

28. (Previously Presented) The method of claim 27, wherein arranging a second pair of inductors comprises arranging the second pair of inductors to have a mutual inductance that increases when the differential amplifier is excited in the differential mode.

29. (Previously Presented) The method of claim 28, wherein arranging a second pair of inductors comprises arranging the second pair of inductors to form a transformer.

30. (Previously Presented) The method of claim 29, wherein arranging a second pair of inductors comprises arranging the second pair of inductors to provide output impedance matching for the differential amplifier.